Listing of the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claim 1 (currently amended): A method of adjusting a transmitting power of a wireless sending entity in a network of wireless communicating entities, including the steps of:

- a processor identifying the entities adjacent to the wireless sending entity, being wireless entities of the network, separate from the sending entity, from which the sending entity is able to receive messages;

- the processor identifying, among the adjacent entities, a minimum constellation associated with the sending entity, as the smallest set of entities adjacent to the sending entity and included in a circle centered on the sending entity such that at least three of the entities of said set form a convex polygon circumscribing the sending entity; and

- the processor adjusting the transmitting power of the sending entity to a value sufficient for ~~the~~ messages sent by the sending entity to reach all the entities of the minimum constellation associated with the sending entity.

Claim 2 (previously presented): The method as claimed in claim 1, further including after the step of adjusting the transmitting power, the step of sending from the sending entity to each adjacent entity a message containing:

- an identifier associated with said sending entity,

- a position of the sending entity and

- a minimum sending distance of the sending entity, i.e. the radius of the smallest circle, centered on the sending entity, including the minimum constellation associated with the sending entity.

Claim 3 (currently amended): The method as claimed in claim 1, wherein the identification of the adjacent entities consists of ~~in~~ storing in a first table, for each adjacent entity:

- an identifier associated with said adjacent entity,

- a position of said adjacent entity and

- a minimum sending distance of said adjacent entity, i.e. the radius of the smallest circle, centered on said adjacent entity, including the minimum constellation associated with said adjacent entity e.

Claim 4 (previously presented): The method as claimed in claim 3, wherein each adjacent entity sends the sending entity a message containing:

- the identifier associated with the adjacent entity,
- the position of the adjacent entity and
- the minimum sending distance of said adjacent entity.

Claim 5 (previously presented): The method as claimed in claim 3, wherein the step of identifying the entities belonging to the minimum constellation associated with the sending entity includes the step of storing in a second table, for each adjacent entity belonging to the minimum constellation:

- the identifier associated with said adjacent entity,
- the position of said adjacent entity and
- the minimum sending distance of said adjacent entity.

Claim 6 (currently amended): The method as claimed in claim 5, further comprising the steps of:

- identifying, among ~~the~~ adjacent entities not belonging to the minimum constellation any peripheral entities defined as entities having a minimum constellation including the sending entity; and

-storing in a third table (J), for each of said entities:

- the identifier associated with said peripheral entity,
- the position of said peripheral entity, and
-the minimum sending distance of said peripheral entity.

Claim 7 (previously presented): The method as claimed in claim 6, wherein the adjustment of the transmitting power includes the step of selecting either the greatest of the distances separating the sending entity from the entities of the third table or, when said third table is

empty, the greatest of the distances separating the sending entity from the entities of the second table, the power adjustment being made in such a way as to adapt a sending range to the selected distance.

Claim 8 (previously presented): The method as claimed in claim 7, further including after the step of adjusting the transmitting power:

- sending from the sending entity to each of the adjacent entities a message containing the identifier of said sending entity, is the position of said sending entity and the minimum sending distance of said sending entity; and

- emptying the first, second and third tables.

Claim 9 (currently amended): A wireless communication unit for a network of wireless communicating entities, comprising:

- means of identifying wireless entities adjacent to said wireless communication unit, being the entities of the network, separate from said communication unit, from which said communication unit is able to receive the messages;

- means of identifying a minimum constellation associated with said communication unit as, the smallest set of entities adjacent to said communication unit included in a circle centered on said communication unit such that at least three of the entities of said set form a convex polygon circumscribing said communication unit;

- means of adjusting the a transmitting power of said communication unit to a value sufficient for ~~the~~ messages sent by the communication unit to reach all the entities of the minimum constellation associated with said communication unit.

Claim 10 (currently amended): A network of wireless communicating entities, wherein each wireless communication entity comprises:

- means of identifying wireless entities adjacent to said wireless communication entity being the entities of the network, separate from said communication entity, from which said communication entity is able to receive messages;

- means of identifying a minimum constellation associated with said communication entity, as the smallest set of entities adjacent to said communication entity included in a circle

centered on said communication entity such that at least three of the entities of said set form a convex polygon circumscribing said communication entity and

- means of adjusting the transmitting power of said communication entity to a value sufficient for ~~the~~ messages sent by said communication entity to reach all the entities of the minimum constellation associated with said communication entity.

Claim 11 (currently amended): A computer program product embedded in a computer readable medium, including instructions for carrying out the following steps upon execution by processing means incorporated in the a sending entity belonging to a network of wireless communicating entities:

- a processor identifying the entities adjacent to the sending wireless entity, being the wireless entities of the network, separate from the sending entity, from which the sending entity is able to receive messages;

- the processor identifying, among the adjacent entities, a minimum constellation associated with the sending entity as the smallest set of entities adjacent to the sending entity and included in a circle centered on the sending entity such that at least three of the entities of said set form a convex polygon circumscribing the sending entity; and

- the processor adjusting a transmitting power of the sending entity to a value sufficient for ~~the~~ messages sent by the sending entity to reach all the entities of the minimum constellation associated with the sending entity.

Claim 12 (currently amended): The method as claimed in claim 1, further comprising the steps of:

- identifying, among ~~the~~ adjacent entities not belonging to the minimum constellation, any peripheral entities defined as entities having a minimum constellation including the sending entity.

Claim 13 (previously presented): The method as claimed in claim 12, wherein the value of the transmitting power is adjusted so that the messages sent by the sending entity also reach the identified peripheral entities.

Claim 14 (previously presented): The method as claimed in claim 13, wherein the value of the transmitting power is adjusted as a minimum power value such that the messages sent by the sending entity also reach the identified peripheral entities.

Claim 15 (currently amended): The wireless communication unit as claimed in claim 9, further comprising;

- means of identifying, among ~~the~~ adjacent entities not belonging to the minimum constellation, any peripheral entities defined as entities having a minimum constellation including said unit.

Claim 16 (previously presented): The wireless communication unit as claimed in claim 15, wherein the power value set by the adjusting means is such that the messages sent by the sending entity also reach the identified peripheral entities.

Claim 17 (previously presented): The wireless communication unit as claimed in claim 16, wherein the power value set by the adjusting means is a minimum power value such that the messages sent by the sending entity also reach the identified peripheral entities.

Claim 18 (currently amended): The computer program product embedded in a computer readable medium as claimed in claim 11, wherein said steps further include:

- identifying, among ~~the~~ adjacent entities not belonging to the minimum constellation, any peripheral entities defined as entities having a minimum constellation including the sending entity.

Claim 19 (previously presented): The computer program product as claimed in claim 18, wherein the value of the transmitting power is adjusted so that the messages sent by the sending entity also reach the identified peripheral entities.

Claim 20 (previously presented): The computer program product as claimed in claim 19, wherein the value of the transmitting power is adjusted as a minimum power value such that the messages sent by the sending entity also reach the identified peripheral entities.